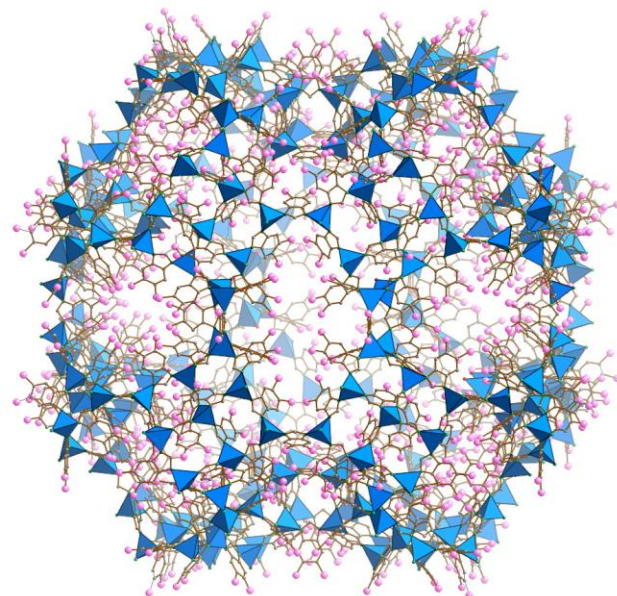




Summary: Using inexpensive custom-designed molecular building blocks, EFRC will create revolutionary new materials for highly efficient organic solar cells, next-generation electrochemical supercapacitors, and advanced systems for capturing and storing greenhouse gases.



RESEARCH PLAN AND DIRECTIONS

Widespread adoption of renewable energy technologies requires significant improvements in their efficiency and cost. EFRC will create new nanoscale materials that can efficiently generate, transport and store energy and mass. Successful completion of research program will dramatically improve the performance of inexpensive organic solar cells, supercapacitors, and carbon capture systems.